

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/25373

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G06F 19/00  
 US CL : 702/79,89,103,104,106,116,125,179,189,191-194; 73/861.06; 324/76.12; 714/815

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 702/79,89,103,104,106,116,125,179,189,191-194; 73/861.06; 324/76.12; 714/815

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 IEEE Articles, Engineering Data Books, Text books and web publications

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EAST (Examiner Automated Search Tool), IEEE Explore, CRC Database, Yahoo, Google

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,581,620 A (Brandstein et al.) 3 December 1996 (3.12.1996), column 2, lines 43-65, column 3, line 45 to column 4, lines 65, column 12, lines 15-56, Fig. 1 and Fig. 6	1-4, 6-16, 18-21, 23-30, 32-34, 38-48, 51-54, 56-62, 64, 65, 66
—		5, 17, 22, 31, 35-37, 49, 50, 55, 63
A		
X	US 6,539,320 B (Szajnowski et al.) 25 March 2003 (25.03.2003), Fig. 2,	1-4, 6-21, 23-34, 36-47, 49-66
—		
A		
A	Jaarsma et al., Joint Estimation of Time Delay and Doppler Ratio From Broadband Data Using Discrete Estimation Technique IEEE Article, April 1991, pages 1289-1292, especially 'Scenario Description' section, pages 1289-1290	5, 22, 35, 48 1-66

Further documents are listed in the continuation of Box C.

See patent family annex.

Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

10 February 2005 (10.02.2005)

Date of mailing of the international search report

12 SEP 2005

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